Resurrecting Lochner: A Defense of Unprincipled Judicial Activism

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Lochner v. New York, 198 U.S. 45 (1905), stands as one of the Supreme Court's most reviled decisions. We challenge the critical consensus against Lochner and provide a defense, albeit a contingent defense, of "unprincipled" judicial activism. To do so, we develop a game-theoretic model of judicial–legislative interaction. We use the model to compare outcomes generated in a system of legislative supremacy to outcomes generated in a system in which judicial review is provided by a legally unprincipled, activist judiciary. We show that judicial review, even when provided by an activist, politicized judiciary, can promote important constitutional values and improve legislative quality relative to a deferential judiciary. In doing so, we identify an important "passive" component to the effect that judicial review has on legislatures and on legislation. Finally, we demonstrate that the addition of other institutions and constraints on judicial behavior amplify the beneficial effects that judicial review provides to the legislative process.

In this article we show that even when we assume the worst about judges—that they are an unprincipled lot who seek only to implement narrow, class-based personal policy preferences—judicial review still "works" to improve the overall quality of legislation. We motivate our argument through the lens of Lochner v. New York, 198 U.S. 45 (1905), one of the most reviled Supreme Court decisions of the last century, and the poster child for "unprincipled" judicial activism. Critics have long accused Lochner's jurisprudence of inviting judges to substitute their personal policy preferences for the preferences of democratically elected legislatures and have claimed that it is more

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appropriate for courts to defer to legislative preferences, at least when reviewing ordinary socioeconomic legislation.[1] The critics won the day, and Lochner has been the symbol of judicial excess ever since. The model we develop grants the critics' assumption that Lochner allowed judges to substitute their policy preferences for those of the legislature.[2] We show, however, that the interaction of unprincipled judges with (equally unprincipled) legislators can nonetheless generate policy outcomes that are superior to those intended by these actors.[3] To be sure, judges (and legislators) are not always the worst possible. So the model also accounts for the marginal improvement in legislation added by judicial review when other institutions also exist to improve legislative quality and when judges are "better" than the unprincipled judges in the baseline model.

Importantly, the improvement in legislative quality that results from (nondeferential) judicial review is not simply a product of courts affirmatively vetoing "bad" laws. Legislators draft statutes in the "shadow of judicial review." Much of the benefit of judicial review in the model—even when it is unprincipled judicial review—results from the "passive" effect of the institution. That is, under the probabilistic threat of litigation (with the possibility of a judicial veto), legislative majorities draft statutory provisions to be immune to the judicial veto. Even though these laws may never be challenged, they owe their qualitative content to the deterrent effect of judicial review. This has important implications for empirical studies of the effect that judicial review has on legislative processes, as well as for theoretical consideration of the institution.

1. The decision stands for the proposition that judges should be free to review the constitutional "reasonability" of all legislation—asking the question whether a given policy is a "reasonable" restriction on liberty—no matter how pedestrian the policy area. In contrast, modern conceptions of the judicial role try to distinguish between policies that should be subjected to heightened judicial scrutiny and those on which judges should defer to the elected branches. Under this two-tiered approach, only legislation that touches on a fundamental right (such as speech) or a suspect classification (such as race) qualifies for heightened judicial review. Ordinary legislation that does not directly involve a fundamental right or a suspect classification—that category that most socioeconomic legislation would fall into—is accorded great deference. So, can a state constitutionally prohibit opticians from grinding replacement lenses for eyeglasses without a prescription from an ophthalmologist? Modern doctrines of two-tiered review would reject this question as inappropriate for judicial determination and uphold the statute as within the legislature's discretion [Williamson v. Lee Optical Co., 348 U.S. 483 (1955)]. A Lochnerized judiciary, in contrast, would take up the question and require the legislature to persuade the court that the regulation meets the judges' conception of reasonable policy.

2. In doing so our argument differs from recent scholarship seeking to revise the critical assessment of Lochner. The revisionists respond to the Realist criticism by arguing, in the main, that the justices in the case articulated a principled holding in the case that was firmly rooted in the then-existing precedent. The argument here *grants* by assumption the Realist claim that Lochner invites unprincipled judicial activism, but shows that the institution of judicial review still attains objectives that Realists (and others) may value.

3. The model accounts for the marginal improvement in legislation added by judicial review even when other institutions exist to improve legislative quality and when judges are "better" than the unprincipled judges in the baseline model.

The article proceeds as follows. First, we briefly review the critical consensus against Lochner. Next, we develop a game-theoretic model of policy-making under the shadow judicial review that *grants* the critics' objections to Lochner. In our model, judicial review is provided by judges who are unprincipled—that is, they deploy the judicial veto only to advance their class-based policy preferences rather than to advance any conception of public welfare or principled constitutionalism. We then compare the policy outcomes that result under an unprincipled, activist judiciary to those resulting from a "deferential" judiciary. Contrary to traditional criticisms of Lochner, we show that unprincipled judicial activism can improve both the distributive fairness and the efficiency of legislation relative to systems in which courts defer to legislative policies. We then discuss analytical and empirical implications of the model.

We want to emphasize from the beginning the limitations of our argument. The conclusion that unprincipled judicial activism improves the "equity" or fairness of legislation is not only the stronger but also the less surprising of our two main results. The addition of a (probabilistic) veto over discriminatory legislation obviously decreases the amount of such legislation that is implemented. Our second main result is not only more contingent but also more surprising. We show that the addition of a judicial veto—even when exercised in an unprincipled fashion by "political" judges—can increase social efficiency. Although this result is contingent on the values of underlying parameters, those parameters are neither "knife-edge" conditions nor are they empirically implausible. Given the critical consensus against Lochner—that it is not only a rejected precedent but also a reviled one—we think that identifying the serious possibility that social welfare would be enhanced rather than diminished by a Lochernized judiciary is an important, if perhaps mischievous, result. At the very least, the analysis presented in this article shows that whether Lochner provides a desirable or undesirable framework for judicial review can only be resolved on empirical, not analytical, grounds. Absent that necessary empirical work, the case against Lochner remains unproven.

We should also make clear what we are not arguing. Lochner is criticized not only for having an illegitimate conception of the judicial task but also for the substantive policy positions it sought to implement, that is, its "laissez-faire" jurisprudence. These are distinct facets of the decision. As Owen Fiss has pointed out, "*Lochner* stands for both a distinctive body of constitutional doctrine and a distinctive conception of the judicial role: One could reject one facet of *Lochner* and accept the other" (1993, 19). This article draws only on Lochner's conception of the judiciary's role in the policy process. The judges in the model we develop are not confined to implementing laissez-fare economic policies. Instead, our judges are unprincipled in the sense that they seek only to promote the interests of the narrow political faction to which they belong, whether those interests are advanced through laissez-faire decisions or not. Second, we should underscore that our argument is not that judges *should* be narrowly political and unprincipled. Rather, we argue that even when judges are political and unprincipled, judicial review in a separation-of-power system can still work to improve outcomes relative to the deferential

alternative provided by courts under the current doctrine of two-tiered review.[4] Finally, we are not arguing that judicial review by activist judges is the only institution that can generate the kind of legislative "moderation" and improvements in efficiency that we highlight. Other institutional features and behaviors may serve the same purpose (e.g., see de Figueiredo 2002). We incorporate these possibilities into the model. Our overall goal is to identify critical shortcomings in the traditional argument against judicial intervention in ordinary socioeconomic policy-making and, hence, to question the case for eliminating "Lochnerized" review in mundane policy areas.

1. Judicial Activism and the Proper Judicial Role

Lochner ranks as one of the US Supreme Court's most notorious decisions.[5] The dissents in the case by Justices Harlan and Holmes maintained that the Court's majority had marked out an intrusive, undemocratic, and illegitimate role for the judiciary by inviting unelected judges to substitute their policy preferences for those of elected legislators. Such judicial activism, they argued, represents an unwarranted intrusion of the judiciary into democratic decision making. A majority of the Court later echoed this criticism and attacked Lochner-type judgments for intruding upon legislative prerogative. Instead, the Court argued, the judiciary should defer to legislatures in areas of ordinary socioeconomic policy:

> The liberty of contract argument pressed on us is reminiscent of the philosophy of Lochner . . . . Our recent decisions make plain that we do not sit as a superlegislature to weigh the wisdom of legislation nor to decide whether the policy which it expresses offends the public welfare. The legislative power has limits . . . [b]ut the state legislatures have constitutional authority to experiment with new techniques; they are entitled to their own standard of the public welfare; they may within extremely broad limits control practices in the business-labor field [Day-Brite Lighting, Inc. v. Missouri, 342 U.S. 421, 424 (1952) citations omitted].

Similar criticisms can be found in academic commentary. Learned Hand argued that Lochner effectively created a tricameral-legislative system in which the judiciary becomes a "third camera with a final veto upon legislation

4. Legal realism, which arose partly in response to the Lochner decision and has become, in the form of the attitudinal model (Segal and Spaeth 2002), the dominant view of judicial behavior in political science of course, challenges the view that judges do (or can be made to) act in a principled, impartial fashion. In this sense, our analysis is designed to look for "second-best" solutions, given that the ideal type of a principled, impartial judiciary may not be feasible.

5. In recent years, a group of "revisionist" scholars has attempted to rehabilitate certain aspects of the Lochner decision. These revisionists argue that the decision did not approve the substitution of judicial policy preferences for those of the legislature, but instead represents a logical extension of an "anticlass" jurisprudence developed in state courts from the mid-part of the 19th century. Although fascinating in its own right, this line of scholarship has no direct bearing on our argument.

with whose economic or political expedience [the Court] totally disagrees" (1908, 500).[6] Scholars have echoed Hand's criticism for the better part of a century. Cass Sunstein concluded that "[t]he received wisdom is that *Lochner* was wrong because it involved 'judicial activism': an illegitimate intrusion by the courts into a realm properly reserved to the political branches of government" (1987, 874). Howard Gillman similarly concluded that the conventional wisdom on Lochner is that "the majority was assaulting the doctrine of separation of powers by substituting its conception of good, effective policymaking for that of the legislature" (1993, 3). The consensus that emerged in reaction to Lochner can be summarized as follows: All things being equal, majoritarian preferences should guide policy in a republican system of government. Given that legislators are elected and that judges are not, we expect legislative preferences to align with the preferences of a majority of the people more often than would the political preferences of judges. Therefore, unelected judges should not ordinarily substitute their political preferences for those of the legislature. Instead, judges should defer to legislative judgments in ordinary policy matters (White 2000, 241–268; Friedman 2001, 2002a, 2002b). This "countermajoritarian" criticism of Lochner makes at least an implicit appeal to a welfare or efficiency criterion: Majority-supported legislation leaves more people better-off than reversion to a minority-supported status quo necessarily represented by the judicial veto.

A related line of criticism asserts that Lochner creates ex ante legal "indeterminacy" because judicial decisions under Lochnerian review will depend on the policy preferences of the different judges who oversee the litigation of different policies. This does not mean that the decisions of the individual judges are indeterminate. In the model developed below, the decisions of particular judges in fact are completely predictable. Rather, the complaint is that judicial decisions are ex ante indeterminate at the legislative stage because legislators do not know which judge will review the legislation they enact. Judges who are free to substitute their policy preferences for those of the legislature will uphold or strike down laws depending on their idiosyncratic policy preferences. Given the heterogeneity of political preferences among the judiciary, legal outcomes will be ex ante indeterminate for the legislature. Commentators complained about the indeterminacy created by the Lochner soon after the decision:

> [I]n the definition of what is "due process" the court leaves the major premise always inarticulate. . . . To leave the major premise inarticulate and to reach results on "judgment" or "intuition" is just a scheme for not having any rule of law or legal generalization which is susceptible of application (Kales 1917, 538).

6. Gerald Gunther summarized Hand's argument as follows: "[T]he *Lochner* philosophy allowed unelected, politically unaccountable judges to decide whether a particular legislative purpose was or was not legitimate. Courts, Hand argued, were not super-legislatures: they exceeded their legitimate powers unless they deferred to elected legislatures on debatable issues" (1994, 122).

Learned Hand argued similarly in 1908 (501) that "A vote of the court necessarily depends not upon any fixed rules of law, but upon the individual opinions upon political or economic questions of the persons who compose it . . .". In his history of the countermajoritarian difficulty, Barry Friedman (2002b) similarly argues that legal indeterminacy was the major objection to Lochner among legal scholars and commentators. In contrast to this consensus, we argue that the indeterminacy the legislature faces from a Lochnerized judiciary can be a virtue, at least when compared with the deferential standard that critics of Lochner urge as the better alternative.

2. Modeling the Effects of Unprincipled Judicial Activism

The common response to these criticisms of "activist," Lochnerian review—reflected in academic consensus and judicial practice—has been that judges should defer to ordinary legislative enactments. We test this conclusion by developing two simple, game-theoretic models to compare legislative outcomes produced by a deferential judiciary with legislative outcomes produced under Lochner-type activist judiciary. Over the last decade, scholars of judicial–legislative interactions have increasingly drawn on formal models for their analyses. In most of these "separation-of-power" models, a policy-oriented court interacts with a policy-oriented legislature, sometimes adding another veto player such as a committee (see, e.g., Ferejohn and Weingast 1992; Gelly and Spiller 1992; McNollgast 1995; Martin 1998; Shipan 1997, 2000; Vanberg 2001). Most of these models have studied the impact of judicial review using one-dimensional spatial models or purely distributive frameworks. This modeling choice focuses attention on the distribution of a fixed amount of policy gain but abstracts away from situations in which institutions create as well as distribute social gains. Some recent models have begun to move beyond this purely distributive framework to integrate means by which courts can generate policy gains to the political system. Rogers (2001) and Rogers and Vanberg (2002), for example, model an informational component to judicial review that creates efficiency gains that would not exist without judicial review.[7]

Our argument builds on this latter work by incorporating a productive as well as a distributive component in our models. We begin by establishing a baseline model in which courts impose no effective review (which below we justify as a proxy for deferential review). We then extend the model to include an activist judiciary and compare the impact of judicial review on policy outcomes as well as on the equity and efficiency of legislative proposals relative to outcomes in the deferential baseline model. Before considering the specific models, we motivate several assumptions.

The controversial aspect of judicial activism (at least as defined here) is that it invites judges to apply their personal policy preferences when deciding

7. Similarly, Carrubba and Rogers (2003) model courts as an informative mechanism that permits otherwise competing states to realize efficiencies that they would not be able to realize without a national court system.

whether to sustain or strike down ordinary socioeconomic legislation. Although "ordinary" legislation can be conceived of in different ways, we model it as a legislative decision over the allocation of the benefit of a policy (β) and of the cost of that policy (τ) across two groups (a "majority" and a "minority"). The policy costs and benefits may be distributed equitably or inequitably by the legislature, and the policies themselves may be (Kaldor–Hicks) efficient or inefficient. (That is, a policy's costs could be greater than its benefit, i.e., $\tau > \beta$.) That legislation can be socially productive distinguishes our modeling approach from that in which the legislature only redistributes a given, fixed pie (e.g., in Baron and Ferejohn 1989).

We assume that the legislators who populate our model belong to one of two factions (named faction A and faction B). They seek only to promote the economic interests of the faction to which they belong. This characterization of legislative preferences echoes James Madison's classic argument in *The Federalist* that the economic and class interests of politicians insinuate themselves in the legislation they produce, making legislators "advocates and parties to the causes they determine" (1961/1999, 47). It also corresponds to standard assumptions in bargaining models of (re)distributive politics.

Although legislators wish to advantage their own faction, political institutions and the political process may provide practical obstacles to their ability to do so. As Madison argued, it is because legislators are motivated by their particular economic and class interests that "the great object" of constitutional design is to create a political system that is able to "control the effects" of factious motivations (1961/1999, 48). In addition to the potential impact of judicial review, institutional features such as the separation of powers, bicameralism (Rogers 1999b), federalism, or specific constitutional requirements (e.g., uniform tax requirements) may place limits on the ability of legislative majorities to fully exploit their power. Similarly, the logic of political competition may generate incentives for restraining partisan impulses (de Figueiredo 2002). We incorporate these possibilities into our analysis through a simple device: We assume that although a majority is free to distribute the policy benefit (β) in any way it chooses, it can allocate at most a fraction of the tax cost of that policy to the minority faction. This fraction is given by $\gamma\tau$, where $\gamma \in (0, 1)$. In other words, γ is a shorthand measure of the extent to which the political system allows legislative majorities to enact policies that shift the burden of those policies to legislative minorities. As γ approaches 0, other elements of the political and legal system deter factious policy-making; as γ approaches 1, legislative majorities are able to engage in "fully factious" legislation. The significant fact is that γ indicates the extent to which the political system constrains legislative majorities in allocating the policy's burden between their own and the minority faction. (These constraints can be institutional, or they can reflect personal preferences for fairness among the decision makers.)

We model the judiciary by assuming that judges, like legislators, are motivated to advance the interests of the faction to which they belong. This assumption is motivated by two considerations. First, a key part of the traditional

argument against Lochner-type review is that the decision exemplifies the intrusion of politically motivated judges in the ordinary policy process and that this creates bad outcomes. We grant the critics' premise, yet demonstrate that the intrusion of politically motivated judges can (unintentionally) create good overall policy outcomes by the way judicial review interacts with and affects the legislative stage of the policy process. Second, as with the other actors in the model, this motivational assumption is consistent with Madisonian premises. The key to institutional design in separation-of-power systems, according to Madison, is to make "ambition . . . counteract ambition . . . [so] that the private interest of every individual [government official] may be sentinel over the public rights" (ibid., 322). Thus, the acid test of the value of judicial review in a separation-of-power system is whether it works even when judges are no better than the legislators whose policies they review.[8]

Finally, we assume a diffuse system of lower courts presided over by an appellate court. The lower court that adjudicates the policy the legislature enacts is selected randomly from the set of lower courts, and legislators are uncertain about the precise ideological leanings of specific courts. This assumption is motivated by the following considerations. Even when Congress (or a state legislature) specifies which court will have jurisdiction over challenges to specific laws, judges at the district court level are randomly selected to hear specific cases and circuit court panels are randomly drawn. Moreover, the votes of pivotal Supreme Court justices often surprise even close observers. As a result, it appears reasonable that legislators will typically face some uncertainty regarding how a particular court will rule. It also makes the judicial system "look" a bit more like the US judiciary, which is heuristically useful. Nonetheless, the two stages could be compressed together and generate results analogous to those we derive.

2.1 Legislation Without Effective Judicial Review

The relevant baseline for comparing the impact of Lochner-type review is a system in which judges defer to legislative enactments. Simplifying, we model judicial deference as the equivalent of a system of legislative supremacy without judicial review. This modeling choice is motivated by the fact that the deferential "rational-basis standard" that replaced Lochnerian review in the United States comes close to the equivalent of no judicial review. As Gerald Gunther famously quipped, deferential review is deferential in theory but is "nonexistent in fact" (1972, 8). Justice Stevens similarly noted in his concurring opinion in U.S. Railroad Retirement Board v. Fritz, 449 U.S. 166 (1980), that the deference accorded by the majority to Congress means that "judicial

8. Although the assumption that judges act as pure partisans provides the hardest-case scenario for demonstrating that judicial review can be beneficial even under these circumstances, we should note that the model is open to a broader interpretation that acknowledges other judicial motivations. Specifically, the parameter γ can be interpreted to capture the impact of judges who may be motivated by legal principles that prohibit factious policy-making, such as uniform tax requirements or limitations on special legislation. The comparative statics results we discuss below for the impact of institutional hurdles that impede factious policy-making thus also apply to increasing the share of "principled" judges in the judiciary.

review ... constitute[s] a mere tautological recognition of the fact that Congress did what it intended to do" (ibid. at 180).[9] Thus, we consider the following baseline model.

1. One of the two factions is elected as the "majority party" that controls the legislative process.
2. The majority faction i has the option of enacting a policy that allocates the benefit β and the cost τ across the two factions, subject to the constraint that $\tau_{j\neq i} \leq \gamma\tau$ where $\gamma \in (0, 1]$ and $i, j \in \{A, B\}$. To enact a proposal, the majority must pay opportunity and transaction costs of $\varepsilon > 0$.[10]

Thus, for $i, j \in \{A, B\}$, a policy enacted by majority faction i is given by a quadruple $\{(\beta_A, \tau_A), (\beta_B, \tau_B)\}$, where $\beta_j, \beta_i, \tau_i \geq 0$, $\tau_j \in [0, \gamma\tau]$, and $\beta_A + \beta_B = \beta$ and $\tau_A + \tau_B = \tau$. The optimal proposals in this simple decision-theoretic model of legislative supremacy are immediate:

Proposition. Without judicial review, whenever $\beta \geq \varepsilon + (1 - \gamma)\tau$, the legislative majority enacts a proposal that allocates the entire benefit to itself and imposes as much of the tax burden as possible on the minority faction. Specifically, faction A will enact the policy $\{(\beta, (1 - \gamma)\tau), (0, \gamma\tau)\}$, whereas faction B will enact the policy $\{(0, \gamma\tau), (\beta, (1 - \gamma)\tau)\}$. For $\beta < \varepsilon + (1 - \gamma)\tau$, the majority will enact no policy.

Our main interest in this proposition is as a baseline for comparing how the addition of Lochnerian judicial review changes the legislature's choices. Nonetheless, it is useful to underscore several features. First, the legislature always adopts the "most" factious policy it can in that it allocates the entire benefit to itself and imposes as much of the associated cost on the nonbenefited minority as possible. Thus, the model tracks the danger of majority tyranny described by Madison in *The Federalist* No. 10 (1961/1999, 48). Consistent with Madison's notion of successful constitutional design, the extent to which a majority is able to "get away" with factious policies depends on the specific characteristics of the political process, as captured by the term γ. Political systems that make it more difficult for legislative majorities to exploit their position (i.e., as γ decreases) result in smaller burdens for minority factions. Such systems also limit the kinds of policies that are adopted: as a system makes it

9. Justice Thomas, writing for the Court in Federal Communications Commission v. Beach Communications, Inc., 508 U.S. 307 (1993), provides a similarly broad construction of rationality review: "On rational-basis review, a classification in a statute ... comes to us bearing a strong presumption of validity, and those attacking the rationality of the legislative classification have the burden to negative every conceivable basis which might support it. [I]t is entirely irrelevant for constitutional purposes whether the conceived reason for the challenged distinction actually motivated the legislature. [A] legislative choice is not subject to courtroom factfinding and may be based on rational speculation unsupported by evidence or empirical data" (ibid., 313–315, citations and internal quotation marks omitted).

10. These costs capture legislative resources, including valuable floor time that must be sacrificed in order to pursue a particular legislative project.

more difficult for majorities to transfer the burden of policies they adopt to nonbenefited minorities, proposed policies must carry larger benefits to be adopted. Finally, note that the legislature may enact inefficient policies in equilibrium, that is, policies in which the associated cost exceeds the benefit of the legislation ($\beta < \tau$). The majority is concerned only with the transaction and tax costs it must bear to enact a policy and not with the tax (or regulatory) burden imposed on the minority. Hence, inefficient policies will be adopted as long as $\beta \geq \varepsilon + (1 - \gamma)\tau$.

2.2 Legislation with a Lochnerized Judiciary

We now extend the model to add judicial review by an unprincipled, activist judiciary and incorporate the two attributes of Lochner-type systems of judicial review that were the focus of the criticisms we discussed above. We assume that the judiciary consists of a two-tiered hierarchical judiciary[11] in which a lower court makes an initial decision that may (but need not) be reviewed by an appeals court. Judges at both levels belong to two types: those affiliated with faction A (Type A judges) and those affiliated with faction B (Type B judges). Judges are "jurisprudentially unprincipled" because they use their judicial decisions to maximize their (and their faction's) payoffs. Uncertainty over the "type" of judge who will review a statute therefore implies that legislators face uncertainty about judicial outcomes as they consider whether to pass a particular bill. The sequence of play is as follows (see Figure 1).

1. One of the two factions is elected as the majority faction in the legislature.
2. The majority faction *I* has the option of enacting a policy that allocates the benefit β and the cost τ across the two factions, subject to the constraint that $\tau_{j \neq i} \leq \gamma\tau$ where $\gamma \in (0, 1]$ and $i, j \in \{A, B\}$. To enact a proposal, the majority must pay opportunity and transaction costs of $\varepsilon > 0$.
3. If the majority enacts a policy, it may be reviewed by a lower court. The probability of lower court review is given by $\phi \in (0, 1)$. If reviewed, the lower court may uphold the proposal or veto it. The probability that the lower court is affiliated with faction A is given by $\Pr(\mathrm{T_{LC}} = \mathrm{A}) = \alpha \in (0, 1)$.
4. If a proposal is reviewed by a lower court, the lower court's decision is reviewed by the appeals court with probability $p \in [0, 1]$.The appeals court may uphold the lower court's decision or it may reverse it. Without loss of generality, we assume that the probability that the appeals court is affiliated with faction A is given by $\Pr(\mathrm{T_{AC}} = \mathrm{A}) = r \in (\frac{1}{2}, 1)$.

11. What matters when legislators draft the legislation in the model is that they do not know what type of judge will review the legislation. We could model one level of judicial review and get similar results. We model two levels for two reasons. First, in the United States, cases are assigned to district court judges probabilistically. That neatly motivates our assumption regarding the ex ante indeterminacy of the judicial process for the legislature. Second, it demonstrates that an appellate level does not alter the article's main finding. There are, of course, three tiers of courts in many legal systems, including the US federal judiciary. We could add a third tier as well, but doing so would complicate the model without providing additional insight.

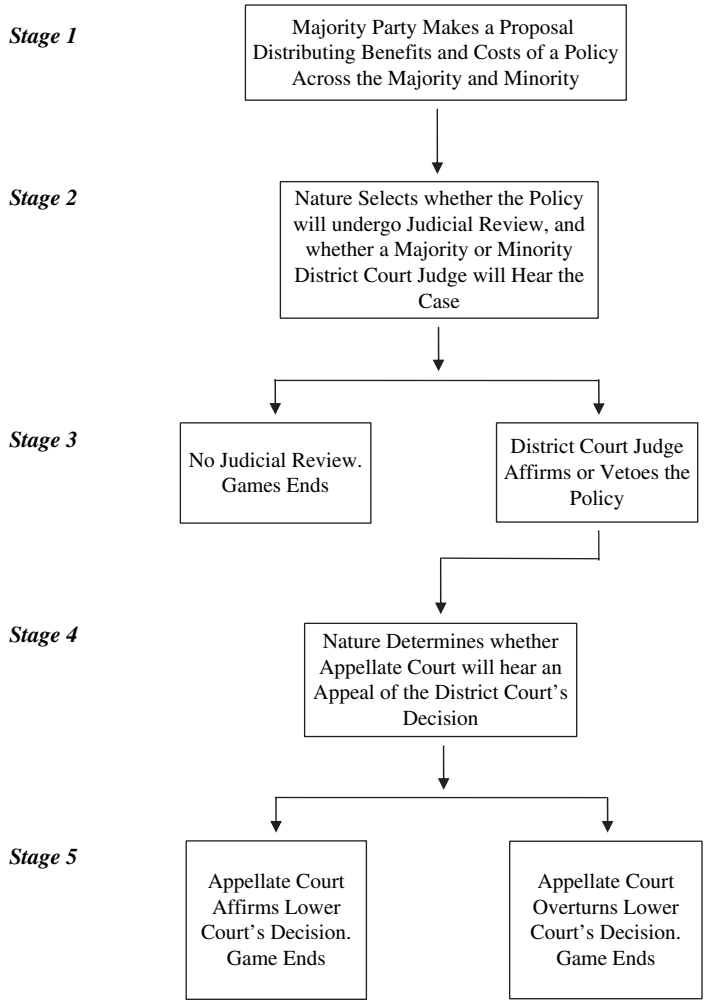

Figure 1. Outline of the Legislative Bargaining/Judicial Review Game.

As in the baseline model, we assume that legislators are motivated by the net share of benefits that accrue to their faction. Consistent with the critique of policy-driven, partisan judges underlying the challenges to Lochnerian review, we assume that judges are similarly motivated, that is, that they are purely partisan actors who care only about the net benefit for their faction.[12] The probability distribution over court types can be interpreted in

12. Lower court judges may also wish to avoid reversals of their decisions by the appellate court. We could capture such institutional concerns by assuming that a "reversal" by the appeals court imposes a cost of $\lambda \geq 0$ on the lower court. (Thus, $\lambda = 0$ corresponds to purely partisan lower court judges.) Adding such a parameter to the model has no impact on the substance of our results. See the appendix for details.

several different ways. It can represent random assignment of cases to particular judges, as practiced on US federal district courts. It could also be interpreted as uncertainty about the political preferences of judges at either level.

Before considering the model's equilibria, several remarks might be helpful. We are simplifying a much more complex reality in assuming that courts are limited either to upholding or vetoing a statute. Judicial review interacts with statutory interpretation in subtle and often controversial ways. Indeed, through statutory interpretation, courts may be able, within limits, to move policy away from outcomes preferred by the median legislator to something closer to a judge's ideal point (Ferejohn and Weingast 1992; Lovell 2003). To date, however, formal approaches have not focused on this interplay between statutory interpretation and constitutional decisions (although compare, Shipan 1997, 2000). So we follow current modeling norms (e.g., Rogers 2001, 2006a; Vanberg 2001, 2004; Carrubba and Rogers 2003) in reserving the integration of these two judicial tools for later consideration. We assume that the language of the litigated statutes are specific enough that opposing judges cannot reasonably construe them in a manner that would make them minimally satisfactory for the judge relative to vetoing the law.[13]

We also abstract away from the broader context within which legislative–judicial interactions typically take place. Specifically, we do not consider the possibility that legislative majorities can react to judicial decisions by disciplining the court. Nor do we consider the possibility that unpopular judicial decisions can undermine public support for an independent judiciary or lead to a public backlash against the court. No doubt both of these aspects are crucial to legislative–judicial interactions, and other models have demonstrated that the possibility of public and legislative reactions can lead strategic judges to limit their own behavior (Rogers 2001, 2006b; Carrubba 2005; Vanberg 2005). In the current context, we ignore these aspects because our purpose is not to offer an account of how these interactions work in practice but to demonstrate that even activist judicial review can have beneficial consequences for the quality of political outcomes. We now turn to the results of this model.

Consider first the equilibrium strategies of the judicial actors. Let $\Delta_i = \beta_i - \tau_i, i \in \{A, B\}$ represent a faction's net share of the costs and benefits of a policy. The lower court's ruling on the policy is represented by $A_{\mathrm{LC}} = \{\mathrm{Uphold},\ \mathrm{Veto}\}$. The strategy of an appeals court associated with faction I is given by:

$$S^i_{\mathrm{AC}} = \begin{cases} \text{Affirm} & \text{if} \quad \Delta_i \geq 0 \quad \text{and} \quad A_{LC} = \text{Uphold} \\ \text{Affirm} & \text{if} \quad \Delta_i \leq 0 \quad \text{and} \quad A_{\mathrm{LC}} = \text{Veto} \\ \text{Reverse} & \text{if} \quad \Delta_i > 0 \quad \text{and} \quad A_{\mathrm{LC}} = \text{Veto} \\ \text{Reverse} & \text{if} \quad \Delta_i < 0 \quad \text{and} \quad A_{\mathrm{LC}} = \text{Uphold.} \end{cases}$$

13. The usual canon of statutory interpretation is to "Avoid interpretations that would render a statute unconstitutional. [This is] inapplicable if [the] statue would survive constitutional attack, *or if [the] statutory text is clear*," as we assume here (Eskridge et al. 2001, Appendix B, 21).

The appeals court can use its position at the top of the judicial hierarchy to prevent implementation of any policy that imposes a net cost on its faction. It can also ensure implementation of any policy that provides a net benefit to its faction. (We should stress that the results we derive below do not hinge on legislative uncertainty over the preferences of the appellate court. Lower court indeterminacy is sufficient to generate our conclusions.)

Now consider the strategy of the lower courts. Unlike the appellate court, lower courts must anticipate possible reversals by the higher court. Moreover, the two types of lower court are not in a symmetric position, since the appellate court is more likely to be affiliated with faction A. (Substantively, e.g., given the current Supreme Court, a "liberal" lower court must anticipate a greater likelihood of reversal for its preferred position than a "conservative" lower court.) Nonetheless, when lower court judges act as pure partisans, the possibility of reversal does not affect their behavior and both types of judges adopt the following strategy[14]:

$$S^i_{\mathrm{LC}} = \begin{cases} \text{Uphold} & \text{if} \quad \Delta_i > 0 \\ \text{Uphold} & \text{if} \quad \Delta_i = 0 \quad \text{and} \quad \Delta_j \geq 0 \\ \text{Veto} & \text{if} \quad \Delta_i < 0 \\ \text{Veto} & \text{if} \quad \Delta_i = 0 \quad \text{and} \quad \Delta_j < 0. \end{cases}$$

The strategy is simple and intuitive. Because they are not concerned about the possibility of reversal, lower courts will give free reign to their partisan preferences. Each type of lower court will veto any proposal that imposes a net burden on its faction and uphold any proposal that provides a net benefit.

Finally, we need to consider the strategies that the factions will adopt at the legislative stage. These strategies will reveal how legislative behavior changes in the shadow of judicial review. The strategy of faction A is given by:

$$S^A_{\mathrm{LM}} =< \begin{cases} \text{No proposal} \\ \quad \text{if } \beta < \min\left[\tau + \varepsilon, (1-\gamma)\tau + \dfrac{\varepsilon}{1-\phi(1-\alpha(1-p)-pr)}\right] \\ \text{Propose } \{(\beta,\tau),(0,0)\} \\ \quad \text{if } \beta \geq \max\left[\tau + \varepsilon, (1-\gamma)\tau + \dfrac{\gamma\tau}{\phi(1-\alpha(1-p)-pr)}\right] \\ \text{Propose } \{(\beta,\tau-\gamma\tau),(0,\gamma\tau)\} \\ \quad \text{if } (1-\gamma)\tau + \dfrac{\gamma\tau}{\phi(1-\alpha(1-p)-pr)} > \beta \\ \quad \geq (1-\gamma)\tau + \dfrac{\varepsilon}{1-\phi(1-\alpha(1-p)-pr)}. \end{cases}$$

14. If we allow lower court judges to care about avoiding reversals, the strategies of A-type judges and B-type judges diverge and become more involved. However, the substance of our results remains unchanged. See the appendix for details.

The strategy of faction B at the legislative stage is given by:

$$S^B_{\mathrm{LM}} =< \begin{cases} \text{No proposal} \\ \quad \text{if } \beta < \min\left[\tau+\varepsilon, \dfrac{\varepsilon}{1-\phi(\alpha(1-p)+pr)}+(1-\gamma)\tau\right] \\ \text{Propose } \{(0,0),(\beta,\tau)\} \\ \quad \text{if } \beta \geq \max\left[\tau+\varepsilon, \dfrac{\gamma\tau}{\phi(\alpha(1-p)+pr)}+(1-\gamma)\tau\right] \\ \text{Propose } \{(0,\gamma\tau),(\beta,\tau-\gamma\tau)\} \\ \quad \text{if } \dfrac{\gamma\tau}{\phi(\alpha(1-p)+pr)}+(1-\gamma)\tau > \beta \\ \quad \geq \dfrac{\varepsilon}{1-\phi(\alpha(1-p)+pr)}+(1-\gamma)\tau. \end{cases}$$

3. Discussion

These strategies are illustrated graphically in Figure 2, which plots legislative outcomes in a two-dimensional space defined by the benefits and costs associated with a given policy. Figure 2 is generic in the sense that it shows the general partition of the policy space by the legislative strategies. Although the relative position and general shape of the boundaries that separate the various areas does not change, the location of the boundaries depends on the model's parameters and differs across factions A and B. We return to some of these comparative statics results below. The boundaries T^i_1 and T^i_2, $i \in \{A, B\}$, are given by the equilibrium conditions:

1. $T^A_1 = (1-\gamma)\tau + \dfrac{\gamma\tau}{\phi(1-\alpha(1-p)-pr)}$ (1)

2. $T^B_1 = (1-\gamma)\tau + \dfrac{\gamma\tau}{\phi(\alpha(1-p)+pr)}$ (2)

3. $T^A_2 = (1-\gamma)\tau + \dfrac{\varepsilon}{1-\phi(1-\alpha(1-p)-pr)}$ (3)

4. $T^B_2 = (1-\gamma)\tau + \dfrac{\varepsilon}{1-\phi(\alpha(1-p)+pr)}$.

To interpret the impact of Lochner-type review as revealed in this figure, it is useful to recall the results of the baseline model. Without effective judicial review, legislative majorities in the baseline model enact factious policies that reserve the entire benefit to their own faction and shift as much of the tax burden as possible to the minority. Looking at Figure 2, legislative majorities enact factious policies above the bold line $\varepsilon + (1-\gamma)\tau$ (regions I, IIa, IIb, and III) and enact no policies below that line. Moreover, the policies falling within areas IIb and III are inefficient in the sense that the tax cost of the policy outweighs its benefits. Politics in the baseline model thus exhibits two central aspects of factious

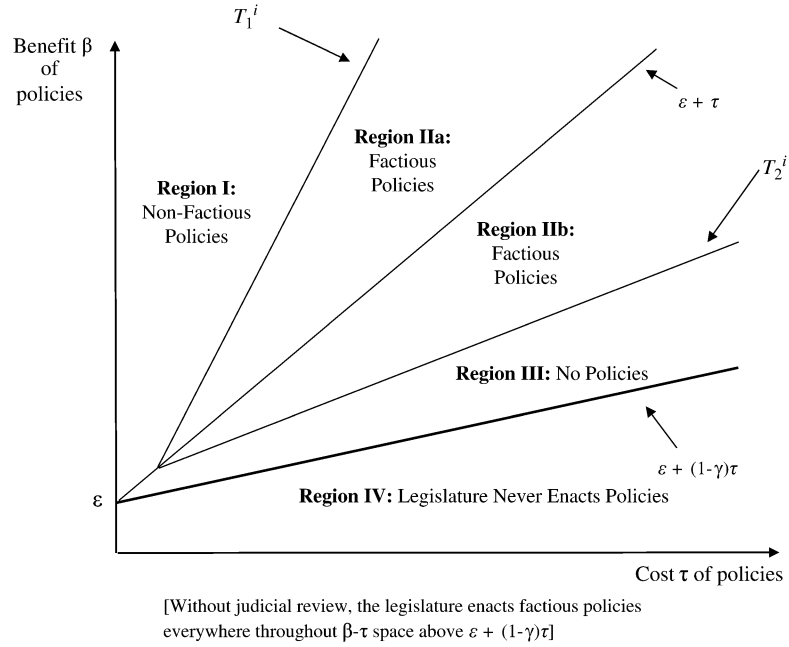

Figure 2. The Impact of Judicial Review on Legislative Behavior and Policy Outcomes ($\lambda = 0$).

action. First, the legislature enacts policies that reserve the whole benefit of those policies to the majority while forcing the minority to assume part of the cost. Second, the legislature enacts some policies that burden minorities disproportionately to the benefit realized by the majority from those policies.

Now consider how Lochner-type review impacts legislative behavior and policy outcomes. In region I, above line T_1^i, the benefits of the policy exceed the associated tax costs by such a wide margin that the mere possibility of a judicial veto by minority party judges induces legislative majorities to assume the entire tax burden of the policy rather than risking judicial annulment. Instead of a "factious" policy, the legislature adopts "nonfactious" policies. In regions IIa and IIb, between lines T_1^i and T_2^i, the benefit of a policy is not sufficiently high, relative to its tax cost and the risk of a judicial veto, to induce nonfactious behavior. Legislative factions continue to enact factious policies, but these policies are struck down during the judicial review process with positive probability.[15] Finally, in regions III and IV, anticipation of a potential judicial veto leads the majority to forego legislating altogether.

Figure 2 powerfully illustrates that the influence of judicial review stems not only from an "active" but also from an unobserved "passive" component (Brace and Langer 2001). The changed policy choices made by the legislature

15. If faction A is the legislative majority, the probability that its policy will be struck down is $\Pr(\text{Veto} \mid \text{Proposal by A}) = \phi(1 - \alpha(1 - p) - pr)$. If faction B is the majority, the probability that a proposal by faction B will be struck down is $\Pr(\text{Veto} \mid \text{Proposal by B}) = \phi(\alpha(1 - p) + pr)$.

in regions I and III represent this passive influence of judicial review. In these regions, legislative majorities respond to the mere threat of judicial review by enacting nonfactious policies by drafting veto-proof policies—policies that all types of judges will affirm. (They sometimes might forego enacting a policy at all.) In these regions, anticipation of judicial review deters legislative majorities from enacting factious policies that it would certainly have enacted in the absence of judicial review.[16] Thus, despite a lack of observable judicial intervention, the institution of judicial review exercises an enormous influence over legislative outcomes in these areas. Regions IIa and IIb, on the other hand, illustrate the active influence of judicial review. Legislative majorities enact a factious policy that will be struck down with a given probability.

We are now in a position to discuss several implications of this impact of "Lochnerian" review on legislative outcomes. We do so through a series of observations.

Observation 1. As long as the judiciary includes some members of the legislature's minority faction, judicial review will always decrease the burden imposed on the minority by the legislative majority.

In regions I and III, where the passive influence of judicial review leads legislative majorities to adopt nonfactious policies or to forego legislating altogether rather than to adopt a factious proposal, legislative minorities are no longer forced to shoulder part of the tax burden for the majority's policies. In regions IIa and IIb, factious policies are still adopted. But although these policies stand with certainty without judicial review, they are now struck down with positive probability. A first, unambiguous conclusion we can thus draw is that the addition of Lochnerized judicial review will always improve equity—in the sense of protecting minorities against the imposition of costs without a corresponding benefit by legislative majorities—relative to a deferential judicial regime.

Next, consider the impact of Lochnerian review on the efficiency of the policies that the legislature enacts. Surprisingly, Lochnerian review can (although will not necessarily) improve the overall social efficiency of policy outcomes.[17] This result—the possibility that the application of judicial review by utterly unprincipled judges can improve social efficiency—is a result that has largely gone unrecognized in the literature on separation-of-power systems.

Observation 2. The passive influence of Lochnerian review does not prevent passage and implementation of the most efficient policies that legislatures can enact. Judicial review also deters enactment of the most inefficient policies.

Policies in region I of Figure 2 are always efficient. Indeed, they are the most efficient policies in the benefit–cost space. The possibility of judicial review does not impact the inclination of legislative majorities to enact these policies. Rather,

16. Empirical examples that illustrate this phenomenon in the European context have been discussed by Stone (1992, 1998) and Vanberg (1998).

17. In this discussion we are considering Kaldor–Hicks efficiency.

it only affects the distribution of costs and benefits by inducing the majority faction to assume the full cost of its policy in order to insure it against a potential judicial veto. This is very good news: In this region, judicial review increases equity by preventing the imposition of a burden on a nonbenefited minority without decreasing social efficiency. The news is as good in region III. All the policies enacted in region III are highly inefficient. The legislature will enact these policies in a deferential judicial regime (because it can shift part of the cost on the legislative minority), but it will forgo their enactment in an activist judicial regime to avoid wasting legislative resources on a policy that risks a (probabilistic) judicial veto. Again, both equity and efficiency are served by judicial review.

Although the impact of judicial review is clear in regions I and III, its impact in regions IIa and IIb is ambiguous. Whether judicial review improves overall social efficiency in this region depends on the proportion of policies struck down in region IIa (where policies are efficient) to the number of policies struck down in region IIb (where policies are inefficient). Overall efficiency is improved if policies are sufficiently likely to be inefficient. If, on the other hand, policies are sufficiently likely to be efficient, judicial review may lower efficiency overall as efficient, factious policies are struck down in the review process.[18]

With these two observations in hand, we can consider how changes in the other parameters of the model impact equity and efficiency.

Observation 3. As the political system as a whole provides greater obstacles to majoritarian policy-making (i.e., as γ decreases), the range of circumstances under which judicial review transforms legislative outcomes increases. In particular, the passive influence of judicial review becomes more significant and efficiency is enhanced.

This observation highlights one of the most interesting—and less obvious—implications of the model. Recall that the parameter γ indicates the extent to which other features of the political system (including the impact of other political institutions, the dynamics of political competition, judicial adherence to the "rule of law," or other nonfactious rules of adjudication) impede legislative majorities from being able to shift the burden of policies they adopt to the minority faction. As γ becomes smaller, the hurdles to factious policy-making increase. As this happens, the slope of line T_1^i decreases and the slope of line T_2^i increases. In other words, region I, in which the legislature makes the nonfactious proposal, and region III, in which the legislatures chooses not to legislate, increase at the expense of regions IIa and IIb. The addition of other institutions amplifies the efficiency impact of Lochner-type review. The passive effect of judicial review becomes more pronounced, and the set of circumstances under which the minority faction is protected by judicial review grows.

18. We should nonetheless note that even if there is a decrease in efficiency as a policy in region IIa is struck down, judicial review still works "correctly" in an important sense. The policies that are struck down, although efficient, are highly factious and impose a burden on nonbenefited minorities to secure a benefit to a legislative majority.

The intuition behind this result is the following. As γ decreases, the benefit to a legislative majority of making a factious proposal declines because the majority can only shift a smaller part of the burden of its policy unto nonbenefited minorities. As a result, majorities become more willing to shoulder the full burden of the policies they wish to pursue in order to avoid a potential judicial veto. They also become less eager to pass policies that do not yield significant benefits above their associated costs. Compared to a system with no judicial review, the absolute harm against which minorities are being protected through judicial review (the imposition of $\gamma\tau$) thus declines, but the *range* of circumstances under which judicial review is able to prevent the imposition of this harm increases. This result provides a potentially broader lesson for constitutional systems with multiple, overlapping institutional avenues for minority influence over policy. As the number of such "institutional hurdles" in a political system increases, the *absolute* impact of each hurdle on policy may become less significant (i.e., the reduction in "harm" as indicated by $\gamma\tau$ declines). Nonetheless, precisely because the absolute impact has become less significant, legislative majorities are more willing to anticipate each hurdle and to "contract around" it. That is, the anticipatory impact of each hurdle will be felt under a broader set of conditions.

Observation 4. An increase in the likelihood of lower court review, ϕ, increases efficiency and equity.

As ϕ increases, the boundary T_2^i shifts upward for both factions. In other words, legislative majorities become more reluctant to adopt inefficient policies and instead choose to forego legislating at a higher rate. An increase in ϕ also shifts down the boundary T_1^i and decreases its slope. That is, legislative majorities become more willing to assume the costs of highly beneficial policies by adopting nonfactious legislation rather than to burden the minority faction. The cumulative effect of an increase in ϕ is therefore to increase areas I and III at the expense of areas IIa and IIb—a clear gain in equity and efficiency.

Observation 5. Changes in the likelihood that faction A predominates at the lower court and at the appeals court level, α or r, have opposite effects on factions A and B. An increase in these parameters encourages faction B to become less factious, but leads faction A to be more factious. Decreases in these parameters have the opposite effect.

Graphically, increases in α or r decrease areas IIa and IIb for faction B and increase areas I and III. For faction A, the impact is the opposite: an increase in α or r decreases areas I and III and increases areas IIa and IIb. This suggests an important trade-off: increasing judicial control for faction i will encourage other factions to be more attuned to the political interests of faction i. But it will lessen the incentives for faction i to consider the interests of judicially underrepresented groups. The key to encouraging *universal* restraint via judicial review lies precisely in the heterogeneity of the judiciary. Values of α and r close to $\frac{1}{2}$ are most likely to strike a balance between the two factions

that encourages each not to engage in the kinds of factious policy-making that Madison identified in *Federalist 10*. In other words, *the decisional indeterminacy created by a mixture of politically motivated judges which opponents of Lochner decry is a driving force behind the moderating influence that judicial review has on otherwise factious policy outcomes*. As long as legislative majorities face a sufficient prospect that a heterogeneous judiciary will scrutinize their proposals, there exist strong incentives to forego factious policy-making and to reduce the number of inefficient policies.[19]

As noted earlier, it is important to emphasize that indeterminacy in this sense does not refer to indeterminacy in an individual judge's decision. The decision of each judge is entirely determined by the faction interests of the judge. Rather, indeterminacy exists at the system level. For legislators trying to anticipate judicial review, judicial decisions appear ex ante indeterminate because they do not know who will review a given statute. We should also stress that indeterminacy in this sense is distinct from a judicial system in which legislation is struck down randomly. If judges simply strike down legislation randomly, legislators have no incentive to alter their behavior. It is precisely because (probabilistically selected) judges affirm or veto legislation depending on whether or not it benefits their faction that legislators have incentives to draft nonfactious policies that are immune to the threat of a judicial veto.

Consider now the broader implications of the results discussed so far. In our model, all the judges are acting in a narrowly partisan, factious manner—they seek only to advance their faction's interests. Yet despite their specific intentions, the diffuse institutional arrangement of the lower courts results in something of an "invisible hand" effect: even though no individual judge intends it, an activist, partisan judiciary promotes efficiency and equity in regions where deferential review would result in inefficiency and inequity. Further, in the region in which efficiency might be sacrificed (and it is possible that efficiency is enhanced in this region as well), partisan judicial review still prevents legislative majorities from burdening minorities with the costs of policies that do not benefit the minorities. Thus, Lochner-type review can help to mitigate deficiencies in democratic politics that the US constitutional system aspires to mitigate.[20]

This suggests that important factual predicates of traditional criticisms of Lochner-type review need to be reconsidered. Activist Lochnerian review

19. This result is reminiscent of de Figueiredo's (2002) argument that electoral uncertainty can induce "cooperative" behavior among parties who agree to insulate each others' policies against repeal. As he shows, such behavior is only sustainable if electoral uncertainty is sufficiently high, that is, if parties are sufficiently balanced.

20. For example, in South Carolina v. Barnwell Bros., Inc., 303 U.S. 177 (1938), Justice Stone notes both deficiencies in the context of an interstate commerce case: "State regulations affecting interstate commerce, whose purpose or effect is to gain for those within the state an advantage at the expense of those without, or to burden those out of the state without any corresponding advantage to those within, have been thought to impinge upon the constitutional prohibition even though Congress has not acted," ibid., at 184, n. 2. In the next term, Stone uses this passage as authority for his famous footnote 4 in United States v. Carolene Products Co. 304 U.S. 144, 152–153, n. 4 (1938) (see Rogers 1999a, 1103–1104).

actually deters relatively little legislative activity (and only the most inefficient and inequitable legislation at that). Although Lochnerian review obviously results in the veto of more legislation than deferential review, legislative majorities face strong incentives to restructure legislation and to assume the full costs of policies that benefit their factions in order to avoid a successful judicial challenge. Further, of the remaining legislation, courts veto only those policies in which majority factions attempt exclusively to appropriate the benefits of a policy for themselves while transferring part of the cost of those policies on nonbenefited minorities.

At the same time, there is a balance to be struck in achieving these results. Although decentralized, Lochnerian review encourages legislative moderation for all factions, the incentives to enact moderate policies decline as a faction controls a higher proportion of the judiciary. In this sense, the sin of the Lochner-era judiciary may not have been political judging, but rather that the lower courts were insufficiently diffuse in their factional commitments to generate recognizably fair and efficient results.

These somewhat abstractly stated results have a number of applications—applications that invite theoretical development as well as empirical testing. Legislative uncertainty regarding judicial preferences plays a critical role in the equity and efficiency results derived above. Hence, institutions that facilitate this sort of uncertainty in the judiciary would be recommended by the conclusions presented above. Partisan rotation in the judiciary—whether as a result of elections or the appointment process—implies less factious legislation enacted by legislatures as they anticipate judicial review. Ideological homogeneity with the judiciary, along with homogeneous preferences across branches of government, imply more factious legislation relative to governments with a more ideologically heterogeneous judiciary. This implies different long-run policy regimes between effective one-party governments—consider perhaps Massachusetts (Democratic) or Utah (Republican), or Southern states in the 1930s—and states with consistent patterns of partisan rotation.

Similarly, "unpredictable" judges would induce less factious legislation. This can result either from individual unpredictability—a Justice O'Connor (on some issues)—or uncertainty about a judge's position when appointed to the bench—a Justice Souter (at least until his voting record became predictable). In either case, the results identify reasons for the attention given to judicial appointments to "critical seats" and critical jurisdictions. These appointments are not important only because of the decisions these judges will make. They are also important because of the decisions they will *not* have to make as a result of legislative anticipation of judicial review. Changes in judicial preferences can change the statutory regimes merely as a result of the possibility of judicial review. Hence, judicial impact extends beyond—perhaps far beyond—the actual cases that a court decides.

The model and results also have broader comparative implications. "Constitutional courts" in which decisions and opinions are announced for the court as a whole without identifying the judges who supported and dissented from

the opinion would induce greater uncertainty than the US practice and, hence, might induce greater legislative uncertainty and less factious legislation. On the other hand, many countries have unitary constitutional courts rather than a diffuse system of courts empowered to make constitutional decisions. This may decrease legislative uncertainty about judicial preferences and thereby increase factious outputs by the respective legislatures.

4. Conclusion

Barry Friedman recently concluded a five-part series on the intellectual history of the "countermajoritarian difficulty" by challenging scholars to focus on the real impact of judicial review rather than focusing on the abstract consistency of judicial review with democratic decision making. We care about democratic processes not as abstract procedures but because they serve other human ends. Rather than "obsess" (Friedman's word for it) about mediate concepts such as "countermajoritarianism," Friedman challenged scholars to cut to the basic questions and "undertake to assess realistically whether judicial review is a net gain or loss for values we hold dear, be they economic growth and security, individual liberty, or equality. Stated differently, is judicial review worth it when we deplore particular results?" (2002b, 257). This article aimed to take up Friedman's challenge. The decisions in Lochner-type systems of judicial review may be "deplorable" when considered individually. Indeed, in our model, *every* use of the judicial veto is deplorable in the sense that it reflects utterly unprincipled judgments based on the narrow self-interest of the judges. But, as Friedman suggests, we are really interested in the aggregate impact of judicial review, that is, whether at the systemic level the institution creates more benefit than loss (however, we choose to measure benefit and loss). It is in this sense that the analysis we developed above suggests a defense of Lochnerian activism. In something reminiscent of an invisible hand process, the separation-of-power system can aggregate the narrowly self-interested, doctrinally indeterminate judicial decisions of a Lochnerian judiciary into overall policy outcomes better than those produced by a deferential judiciary. And the system produces those benefits even though none of the legal and political actors intend to create those benefits.

Paradoxically, the beneficial effect of Lochner-type review results from one of the primary vices attributed to the decision: legal indeterminacy faced by legislators when drafting a statute. It is the ultimate uncertainty of policy outcomes created at the legislative stage by the unprincipled decision making of politically motivated judges that induces legislators to more equitable and efficient policies than they would in the absence of judicial review. Putting this differently, our results highlight the important impact of what Brace and Langer (2001) term the "passive" effect of judicial review. Judicial review does not influence legislative outcomes only when judges strike down legislation. Rather, the relationship between the two institutions constructs a strategic environment that influences the way that policies allocate benefits and

costs when they are drafted and enacted in the first instance. In the model developed above, judicial review results in more equitably distributed legislation and, under plausible circumstances, more efficient legislation than would be enacted without judicial review. Judicial review has an effect even when legislation is not challenged or struck down. Hence, the influence of the judicial veto in separation-of-power systems—whether approached theoretically or empirically—cannot be understood by considering only laws which are actually challenged or laws that are struck down.

As we discussed at length above, the beneficial impact of judicial review in the context of this model derives from the heterogeneity of policy preferences among the judiciary and between the legislature and (some) judges. Other recent work has stressed that relative homogeneity of legislative and judicial preferences can allow courts to provide a valuable informational benefit to legislative majorities (Rogers 2001) or provide incentives for legislators to delegate interpretation decisions to courts (Lovell 2003). Additional research can consider whether there exists a genuine trade-off between the equity and efficiency gains we identify and the informational and process gains identified in those other works. Finally, our results also underscore that scholars should not study the Supreme Court in isolation from the lower courts. Given that the Supreme Court can only imperfectly monitor the decisions of lower courts, studies of the Lochner era need to consider the ideological diversity of the lower courts during that period. The lessons on that score extend beyond the Lochner era, suggesting additional avenues for examining the influence of judicial review in the current era as well.

Appendix

Tiebreak rule

A court will uphold a proposal if indifferent between vetoing and upholding. If indifferent, the legislative majority will make a proposal.

1. Appeals court stage:

   The appeals court will veto any proposal that imposes a net cost on its faction and uphold any proposal that provides a net benefit. Let $\Delta_i = \beta_i - \tau_i$ denote the net share of benefits and costs imposed on faction $i \in \{\mathrm{A}, \mathrm{B}\}$ and let $A_{\mathrm{LC}} \in \{\mathrm{Uphold}, \mathrm{Veto}\}$ denote the lower court ruling on the proposal. Then it is immediate that the strategy of an appeals court associated with faction i is given by:

$$S^i_{\mathrm{AC}} = \begin{cases} \text{Affirm} & \text{if } \Delta_i \geq 0 \quad \text{and} \quad A_{\mathrm{LC}} = \text{Uphold} \\ \text{Affirm} & \text{if } \Delta_i \leq 0 \quad \text{and} \quad A_{\mathrm{LC}} = \text{Veto} \\ \text{Reverse} & \text{if } \Delta_i > 0 \quad \text{and} \quad A_{\mathrm{LC}} = \text{Veto} \\ \text{Reverse} & \text{if } \Delta_i < 0 \quad \text{and} \quad A_{\mathrm{LC}} = \text{Uphold}. \end{cases}$$

2. Lower court stage:

   We show how to derive the strategy of a lower court associated with faction A. The derivation for a lower court associated with faction B

proceeds analogously. There are six possible scenarios that an A lower court can confront:

(i) $\Delta_A \geq 0 \quad \text{and} \quad \Delta_B \geq 0.$

For this case, the court has a dominant strategy to uphold.

(ii) $\Delta_A < 0 \quad \text{and} \quad \Delta_B < 0.$

For this case, the court has a dominant strategy to veto.

(iii) $\Delta_A < 0 \quad \text{and} \quad \Delta_B = 0.$

For this case, the court has a dominant strategy to veto.

(iv) $\Delta_A = 0 \quad \text{and} \quad \Delta_B < 0.$

For this case, the court has a dominant strategy to veto.

(v) $\Delta_A > 0 \quad \text{and} \quad \Delta_B < 0.$

The expected utilities are given by:

$$\mathrm{EU}^A_{\mathrm{LC}}(\text{Uphold}) = (1 - p(1-r))\Delta_A - p(1-r)\lambda \quad \text{and}$$

$$\mathrm{EU}^A_{\mathrm{LC}}(\text{Veto}) = pr(\Delta_A - \lambda).$$

Thus, the lower court will uphold iff:

$$\Delta_A \geq \frac{-p\lambda(2r-1)}{1-p}.$$

This condition is always satisfied for $r \in [\frac{1}{2}, 1]$.

(vi) $\Delta_A < 0 \quad \text{and} \quad \Delta_B > 0.$

The expected utilities are given by:

$$\mathrm{EU}^A_{\mathrm{LC}}(\text{Uphold}) = (1 - pr)\Delta_A - pr\lambda \quad \text{and}$$

$$\mathrm{EU}^A_{\mathrm{LC}}(\text{Veto}) = p(1-r)(\Delta_A - \lambda).$$

Thus, the lower court will uphold iff:

$$\Delta_A \geq \frac{p\lambda(2r-1)}{1-p}.$$

This condition cannot be satisfied for $r \in [\frac{1}{2}, 1]$.

Thus, the strategy for a lower court associated with faction A is given by:

$$S^A_{\mathrm{LC}} = \begin{cases} \text{Uphold} & \text{if } \Delta_A > 0 \\ \text{Uphold} & \text{if } \Delta_A = 0 \quad \text{and} \quad \Delta_B \geq 0 \\ \text{Veto} & \text{if } \Delta_A < 0 \\ \text{Veto} & \text{if } \Delta_A = 0 \quad \text{and} \quad \Delta_B < 0. \end{cases}$$

3. The legislative stage:
   We show how to derive the legislative strategy of faction A. The derivation for faction B proceeds analogously. Faction A must consider several possible courses of action.

   (a) It could make no proposal at all.
   (b) "Nonfactious proposal:" $\Delta_A > 0$ and $\Delta_B = 0$. This proposal would be upheld by all lower courts and appeals courts.
   (c) "Restrained proposal:" $\Delta_A > 0$ and $\Delta_B = \max\left[-\gamma\tau; \frac{-\lambda p(2r-1)}{1-p}\right]$. This proposal will be upheld by all lower courts and the A appeals court, but will be quashed by a B appeals court.
   (d) "Unrestrained proposal:" It could propose $\Delta_A > 0$ and $\Delta_B < \frac{-\lambda p(2r-1)}{1-p}$. Only possible if $\lambda \leq \frac{(1-p)\gamma\tau}{p(2r-1)}$. This proposal will be vetoed by all B courts and upheld by all A courts.

Subcase I

$\lambda \leq \frac{(1-p)\gamma\tau}{p(2r-1)}$ (This includes the case in which $\lambda = 0$, that is, when lower court judges are pure partisans.) The proposals that the A faction must consider are the following:

(i) No proposal at all
(ii) The nonfactious proposal: $\{(\beta, \tau), (0, 0)\}$
(iii) The restrained proposal (will be upheld by B lower court judges): $\left\{\left(\beta, \tau - \frac{\lambda p(2r-1)}{1-p}\right), \left(0, \frac{\lambda p(2r-1)}{1-p}\right)\right\}$
(iv) The unrestrained proposal: $\{(\beta, \tau - \gamma\tau), (0, \gamma\tau)\}$.

The expected utilities of each action are given by:

$$\mathrm{EU}^A_{\mathrm{LM}}(\text{No proposal}) = 0$$

$$\mathrm{EU}^A_{\mathrm{LM}}(\text{Nonfactious}) = \beta - \tau - \varepsilon$$

$$\mathrm{EU}^A_{\mathrm{LM}}(\text{Restrained}) = (1 - \phi p(1-r))\left(\beta - \tau + \frac{\lambda p(2r-1)}{1-p}\right) - \varepsilon$$

$$\mathrm{EU}^A_{\mathrm{LM}}(\text{Unrestrained}) = (1 - \phi(1 - \alpha(1-p) - pr))(\beta - (1-\gamma)\tau) - \varepsilon.$$

Deriving the conditions under which each of these expected utilities is greater than the others reveals that faction A's legislative strategy is given by:

$$
S^{A}_{\mathrm{LM}} \leq \begin{cases}
\text{No proposal} \\
\quad \text{if } \beta < \min\left[\tau+\varepsilon; \dfrac{\varepsilon}{1-\phi(1-\alpha(1-p)-pr)}+(1-\gamma)\tau; \right. \\
\qquad \left. \tau - \dfrac{\lambda p(2r-1)}{1-p} + \dfrac{\varepsilon}{1-\phi p(1-r)}\right] \\
\text{Propose } \{(\beta,\tau),(0,0)\} \\
\quad \text{if } \beta \geq \max\left[\tau+\varepsilon; \dfrac{\gamma\tau}{\phi(1-\alpha(1-p)-pr)}+(1-\gamma)\tau; \right. \\
\qquad \left. \tau - \dfrac{\lambda p(2r-1)}{1-p} + \dfrac{\lambda(2r-1)}{\phi(1-p)(1-r)}\right] \\
\text{Propose } \left\{\left(\beta, \tau - \dfrac{\lambda p(2r-1)}{1-p}\right), \left(0, \dfrac{\lambda p(2r-1)}{1-p}\right)\right\} \\
\quad \text{if } \tau - \dfrac{\lambda p(2r-1)}{1-p} + \dfrac{\lambda(2r-1)}{\phi(1-p)(1-r)} > \beta \\
\quad \geq \max\left[\tau - \dfrac{\lambda p(2r-1)}{1-p} + \dfrac{\varepsilon}{1-\phi p(1-r)}; \left(\dfrac{1-\phi p(1-r)}{\phi(1-\alpha)(1-p)}\right)\right] \\
\quad \left(\tau - \dfrac{\lambda p(2r-1)}{1-p}\right) - \dfrac{1-\phi(1-\alpha(1-p)-pr)}{\phi(1-\alpha)(1-p)} \\
\text{Propose } \{(\beta,\tau-\gamma\tau),(0,\gamma\tau)\} \\
\quad \text{if } \min\left[\left(\dfrac{1-\phi p(1-r)}{\phi(1-\alpha)(1-p)}\right)\left(\tau - \dfrac{\lambda p(2r-1)}{1-p}\right) \right. \\
\quad \left. - \dfrac{1-\phi(1-\alpha(1-p)-pr)}{\phi(1-\alpha)(1-p)}; \dfrac{\gamma\tau}{\phi(1-\alpha(1-p)-pr)}+(1-\gamma)\tau\right] \\
\quad > \beta \geq \dfrac{\varepsilon}{1-\phi(1-\alpha(1-p)-pr)}+(1-\gamma)\tau.
\end{cases}
$$

Subcase II

$\lambda \geq \frac{(1-p)\gamma\tau}{p(2r-1)}$. In this case, the unrestrained proposal under (d) is not an option. The only possibilities that need to be considered are the following:

(i) No proposal at all
(ii) The nonfactious proposal: $\{(\beta,\tau),(0,0)\}$
(iii) The restrained proposal (will be upheld by B lower court judges): $\left\{\left(\beta, \tau - \frac{\lambda p(2r-1)}{1-p}\right), 0, \left(\frac{\lambda p(2r-1)}{1-p}\right)\right\}$.

The expected utilities of each action are given by:

$$\mathrm{EU}^{A}_{\mathrm{LM}}(\text{No proposal}) = 0$$

$$\mathrm{EU}^{A}_{\mathrm{LM}}(\text{Nonfactious}) = \beta - \tau - \varepsilon$$

$$\mathrm{EU}^{A}_{\mathrm{LM}}(\text{Restrained}) = (1 - \phi p(1-r))\left(\beta - \tau + \frac{\lambda p(2r-1)}{1-p}\right) - \varepsilon.$$

Deriving the conditions under which each of these expected utilities is greater than the others reveals that faction A's legislative strategy is given by:

$$S^{A}_{LM} \leq \begin{cases} \text{No proposal} \\ \quad \text{if } \beta < \min\left[\tau + \varepsilon, \dfrac{\varepsilon}{1 - \phi p(1-r)} + \tau - \dfrac{\lambda p(2r-1)}{1-p}\right] \\ \text{Propose } (\beta, \tau), (0,0) \\ \quad \text{if } \beta \geq \max\left[\tau + \varepsilon, \tau - \dfrac{\lambda p(2r-1)}{1-p} + \dfrac{\lambda(2r-1)}{\phi(1-p)(1-r)}\right] \\ \text{Propose } \left\{\left(\beta, \tau - \dfrac{\lambda p(2r-1)}{1-p}\right), \left(0, \dfrac{\lambda p(2r-1)}{1-p}\right)\right\} \\ \quad \text{if } \tau - \dfrac{\lambda p(2r-1)}{1-p} + \dfrac{\lambda(2r-1)}{\phi(1-p)(1-r)} > \beta \\ \quad \geq \dfrac{\varepsilon}{1 - \phi p(1-r)} + \tau - \dfrac{\lambda p(2r-1)}{1-p}. \end{cases}$$

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